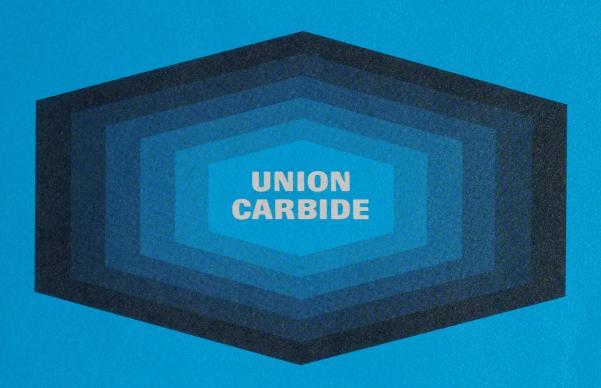
H



1968 Annual Report

**UNION CARBIDE CANADA LIMITED** 



The Annual Meeting of Shareholders will be held on Thursday, April 24, 1969 at 11:00 a.m. in the Roof Garden of the Royal York Hotel, Toronto, Ontario.

Sur demande, il nous fera plaisir de vous envoyer l'édition française de ce rapport.

## THE COVER

The hexagon is Union Carbide's principal trade mark. On the cover the hexagons are so arranged as to portray the broad diversity of the Company's product mix and, at the same time, its unity of purpose — to serve the industry and people of Canada.

## To Our Shareholders

It is a pleasure to report to you on the operations of Union Carbide Canada Limited for the year 1968. Sales at \$166.2 million achieved a record level, and represented a gain of 3.2 per cent over restated 1967 sales. Earnings at \$9.6 million, or 96¢ per share, were 3.7 per cent higher than the restated 1967 earnings.

Productivity improvements coupled with expanding markets for Company products were encouraging facets of our 1968 operations. However, the benefits of these gains were inhibited to a considerable degree by an inflationary economy, a higher effective tax rate and declining prices for many of our products.

Despite the severity of 1968's cost-price squeeze, the Company successfully adjusted to the pressures. Looking forward, we anticipate some moderation in the declining pattern of prices and, although inflation continues to present difficulties, further productivity improvements and an expanding economy should help offset higher costs.

Product diversity provides a firm basis for Union Carbide's future growth. By supplying a wide range of markets, we participate in most of the exciting developments on the Canadian scene. Some indication of this is depicted in the foldout section at the back of this Report.

William A. Dimma, Executive Vice-President of the Company, was appointed a director in February, 1968, succeeding Alison A. Cumming who resigned from the Board. At the 1968 Annual Meeting, shareholders sanctioned an increase from eight to ten in the number of Company directors; Jacques de Billy, of Quebec City, and Ian D. Sinclair, of Montreal, were elected to fill the new positions. Most recently, in January 1969, Robert F. Flood, a Vice-President of Union Carbide Corporation, was also appointed a director, replacing Donald B. Benedict who resigned.

I wish to acknowledge with sincere appreciation the very real contribution that has again been made by our employees. In this year of adjustment their efforts were particularly outstanding and their accomplishments significant.





J. S. Dewar



W. A. Dimma



R. S. Hughes







G. O. Loach

R. O. Holditch

Union Carbide's activities are directed by the Company's six senior officers who form the President's Council. They are: J. S. Dewar, President; W. A. Dimma, Executive Vice-President; R. S. Hughes, Vice-President; G. O. Loach, Vice-President; W. S. Wyman, Vice-President; R. O. Holditch, Secretary and Treasurer.

## **Directors and Officers**

## DIRECTORS

Paul L. Alspaugh	Vice-President, Union Carbide Corporation, New York
Jacques de Billy	Senior Partner, Messrs. Gagnon, de Billy, Cantin, Dionne & La Haye, Quebec City
John S. Dewar	President, Union Carbide Canada Limited, Toronto
William A. Dimma	Executive Vice-President, Union Carbide Canada Limited, Toronto
Robert F. Flood	Vice-President, Union Carbide Corporation, New York
Salter A. Hayden	Senior Partner, Messrs. McCarthy & McCarthy, Toronto
Allen T. Lambert	Chairman of the Board and President, The Toronto-Dominion Bank, Toronto
John F. Shanklin	Vice-President and Secretary, Union Carbide Corporation, New York
Ian D. Sinclair	President, Canadian Pacific Railway Company, Montreal
George C. Wells	Vice-President, Union Carbide Corporation, New York

## EXECUTIVE OFFICERS

John S. Dewar	President
William A. Dimma	Executive Vice-President
Richard S. Hughes	Vice-President
Gerald O. Loach	Vice-President
Whitford S. Wyman	Vice-President
Ross O. Holditch	Secretary and Treasurer

FINANCIAL HIGHLIGHTS	1968	1967
Net Sales	\$166,158,000	\$160,979,000
Net Income	9,568,000	9,226,000
Per Share	\$0.96	\$0.92
Shareholders' Equity	107,618,000	104,050,000
Per Share	\$10.76	\$10.40
Construction Expenditures	13,262,000	20,053,000
Depreciation	12,006,000	11,501,000
Total Assets	184,265,000	179,734,000

## Operations Review



In the main fabricating area of the new Gas Products plant at Mississauga, Ontario are assembled cryogenic vessels for the

storage of liquid gases. The plant, which manufactures specialized equipment allied to gas technology, was opened in 1968.

In 1968, the accounts of Chicoutimi Silicon Ltd. and Smelter Power Corporation were consolidated with those of Union Carbide Canada Limited. Previously, these subsidiaries were included under the heading "Investments" on the Consolidated Balance Sheet. For comparative purposes, the 1967 and 1966 figures in this Report have been restated to reflect the consolidation.

## Total sales and income

Sales of all products and services in 1968 reached a record high of \$166,158,000, up 3.2 per cent from the 1967 sales of \$160,979,000. However, lower selling prices for many products, strikes at certain customers' plants, and reduced activity in some industries served by the Company all combined to restrict sales growth in the year.

The Company's price index has been declining contrary to the general trend of prices in the Canadian economy. Prices for the various products and services of

Union Carbide Canada were, on average, five per cent lower than in 1967, while physical volume increased eight per cent.

Net income was \$9,568,000, representing a 3.7 per cent increase over the \$9,226,000 earned in 1967. This increase is all the more significant considering it was achieved in the face of the same factors which depressed sales revenue and, in addition, a higher effective tax rate in 1968.

Consolidation of Chicoutimi Silicon Ltd. and Smelter Power Corporation reduced 1968 earnings by \$506,000 and those previously reported for 1967 by \$485,000. Both losses were primarily the result of excess operating costs and preliminary expenses associated with the installation and start-up of the new production facilities of Chicoutimi Silicon Ltd.

The Company carries on a continuous program to improve productivity which, along with an expanding

market demand, is the major source of earnings growth. This program includes up-grading of production facilities to incorporate the latest advances in technology, and encompasses improvements in paper flow and information systems through computer application.

## Group sales

Sales of *Chemicals and Fibres* enjoyed the largest percentage gain of any of the Company's groups. As was the case in 1967, this is largely the result of entering the market for nylon products, although sales volume of chemical products also showed a marked improvement.

Plastics sales remained about the same. While almost every segment of this group registered significant volume increases, these were offset by major price decreases. Relatively slow activity in the industrial construction industry, to which Union Carbide is a major supplier of polyethylene film, also contributed to the lack of growth. There are indications that polyethylene prices have levelled out and that some strengthening may occur in 1969.

Sales of *Gases* exceeded those of 1967. A generally higher level of activity in the industries served by this group, coupled with a broader application of technology, accounted for the increase.

Sales of *Metals* also improved, mainly as a result of increased shipments of ferrosilicon from Chicoutimi Silicon Ltd.

Sales of *Carbons* were below those of 1967. A cyclical demand for some products, an increase in competition from overseas countries, and a slowdown in some industries served by this group were responsible for the decrease.

## Construction

Construction expenditures of \$13,262,000 were below the 1967 level. On the whole, 1968 expenditures were directed to the completion of major expansion projects to meet growing market demand, although the cost of implementing productivity improvements also accounted for a large portion of the total sum.

Most expenditures occurred in the *Chemicals, Fibres and Plastics* groups. Projects completed at the Company's Montreal East petrochemical complex included major increases in polyethylene and ethylene oxide capacities; the installation of additional polyethylene bulk handling equipment; and facilities for the production of vulcanizable polyethylene. Also completed during the year was an expansion of carpet yarn manufacturing facilities at the Arnprior, Ontario nylon plant.

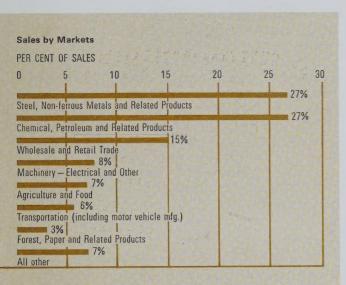
Distribution of the Sales Dollar	1968 cents	
Materials, Services and Other Costs of Doing Business	60	CANAI
Wages and Salaries	21	
Federal and Provincial Income Taxes	6	The state of the s
Depreciation	7	
Dividends Paid	4	
Retained to Provide New Facilities and Working Capital	2	

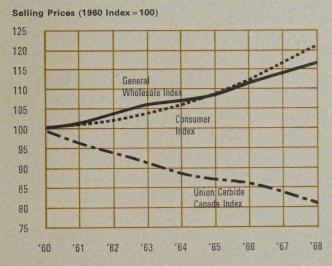
## Sales by Operating Groups

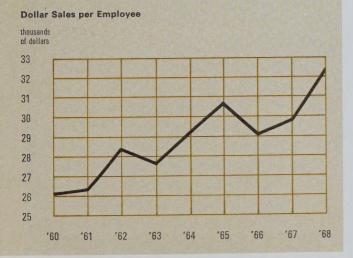
1968		196	Percentage	
Amount	Per Cent of Total	Amount	Per Cent of Total	Change From 1967
(in thousands)		(in thousands)		
\$ 30,387	18	\$ 26,320	16	+15
46,686	28	46,757	29	
29,190	18	27,830	17	+ 5
32,904	20	31,981	20	+ 3
26,991	16	28,091	18	- 4
\$166,158	100	\$160,979	100	+ 3
	Amount (in thousands) \$ 30,387 46,686 29,190 32,904 26,991	Per Cent of Total (in thousands) \$ 30,387	Per Cent Amount of Total Amount (in thousands) (in thousands) \$ 30,387	Per Cent Amount         Per Cent of Total         Amount of Total         Per Cent of Total           (in thousands)         (in thousands)         16           \$ 30,387         18         \$ 26,320         16           46,686         28         46,757         29           29,190         18         27,830         17           32,904         20         31,981         20           26,991         16         28,091         18

## Construction Expenditures by Operating Groups

	1968 Amount	Per Cent of Total	1967 Amount	Per Cent of Total
Chemicals, Fibres	(in thousands)		(in thousands)	
and Plastics	\$ 8,762	66	\$ 9,669	48
Gases	2,129	16	6,062	30
Metals	1,588	12	3,248	16
Carbons	783	6	1,074	6
	\$13,262	100	\$20,053	100







In October the *Gases* group opened a new plant at Mississauga, Ontario for the manufacture of cutting and welding apparatus, cryogenic vessels and distillation trays.

In addition to completed projects, engineering was well advanced on the expansion of graphite facilities at Welland, Ontario. The new plant will incorporate the most advanced technology in forming, baking and graphitizing, and is scheduled for completion in 1970. Also underway is a modernization of the non-woven fibre products manufacturing facilities at Brampton, Ontario.

At the 1967 Annual Meeting, it was stated that the Company was considering construction of a major petrochemical facility in Eastern Canada having a total annual production capacity of 500 million pounds of ethylene. Since then, plans have been actively developed, but the uncertainties surrounding such things as raw material costs, tariffs and taxes caused the Company to announce in mid-1968 deferment of a decision on the project. The change represents a postponement and not a cancellation of plans, and the economic justification of such a project is to be reviewed in mid-1969. Meanwhile, the Company has contracted to purchase its additional ethylene requirements beyond the capacity of its own production facilities.

## Subsidiaries

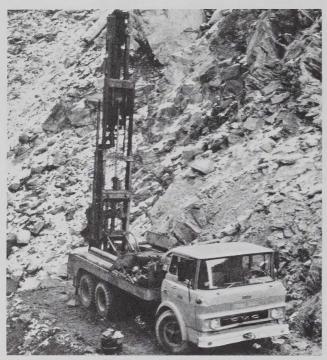
The Becker companies registered a significant sales improvement during 1968 with operations at a high level in the last quarter of the year. The unique Becker drilling devices have world-wide application and are currently in use throughout Canada as well as in several foreign countries.

The new plant of Chicoutimi Silicon Ltd. made major shipments of ferrosilicon to Japan and the United Kingdom as well as to the Canadian market. Electricity generated by Smelter Power Corporation is primarily supplied to Chicoutimi Silicon Ltd.

Union Carbide Canada Mining Ltd. owns a quartzite quarry at Melocheville, Quebec. This quarry supplies raw material for the production of ferrosilicon and silicon metal at Beauharnois and Chicoutimi, Quebec. Also attached to Union Carbide Canada Mining Ltd. is an exploration staff which evaluated mineral properties in five provinces during the year.

## Employee relations

Working relationships at all employee levels within the Company contributed toward offsetting higher costs and improving customer service.



This truck-mounted Becker hammer drill is boring overburden at a mine in British Columbia. A unique Canadian invention, the Becker drill offers a number of advantages over conventional systems. Becker drills are operating in New Caledonia, Thailand, Pakistan as well as in Canada and the United States.

One of the largest of its kind in North America, the ferrosilicon furnace at Chicoutimi Silicon Ltd. has an annual capacity of 25,000 tons with most of the product being exported. The operations of Chicoutimi Silicon and Smelter Power Corporation, which provides the hydro-electric power for the smelting plant, were recently consolidated with those of Union Carbide.

During the year, a number of collective bargaining agreements with organized labour were re-negotiated without interruption of production.

The Company increased its contribution toward the premiums for hospital and medical care for employees. This resulted from its regular assessment of the Employee Benefit Plan program.

Through the efforts of the various plant staffs there were again few serious accidents. The Toronto plant of Consumer Products won the million-hour award of the Industrial Accident Prevention Association. Other plants also had enviable records and 30 received the Company's Safety Award for completing an accident-free year.

## Technology

To a large extent, the Company's growth and expansion is dependent on a dynamic program to develop new products and processes especially suited to Canadian conditions and markets.

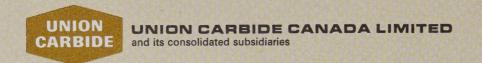
The Company also has access to the technology created in Union Carbide Corporation's world-wide research and development facilities. Seven laboratories located in Ontario and Quebec adapt these developments to Canadian needs as well as carrying out the Company's own program of original research.

Notable developments during the year included several new and improved chemical products, as well as newly created metallurgical and welding techniques. Development of the new high density polyethylene process continued at Montreal East and significant progress is being made.





1968 CONSOLIDATED FINANCIAL STATEMENTS



## Consolidated Statement of Income and Retained Earnings

	Year e December		Year of December (resta	31, 1967
Sales		\$166,158,000		\$160,979,000
Cost of Goods Sold	\$120,664,000		\$117,257,000	
Selling, General and Adminis- trative Expenses	14,038,000	134,702,000	13,728,000	130,985,000
		31,456,000		29,994,000
Depreciation (Note 6)	12,006,000		11,501,000	
Interest on Long Term Debt	1,351,000		1,359,000	
Amortization of Patents, Trade  Marks and Goodwill	291,000	13,648,000	291,000	13,151,000
Investment Income	302,000		270,000	
Gain on Disposal of Capital Assets	577,000	879,000	137,000	407,000
Income before Income Taxes and Minority Interest		18,687,000		17,250,000
Income Taxes (Note 4) Current Deferred	10,509,000 (1,082,000)	9,427,000	5,497,000 2,814,000	8,311,000
Income before Minority Interest		9,260,000		8,939,000
Minority Interest		(308,000)		(287,000)
Net Income		9,568,000		9,226,000
Net Income per Share	\$0.96		\$0.92	
Retained Earnings at January 1		44,450,000		41,224,000
		54,018,000		50,450,000
Dividends Paid		6,000,000		6,000,000
Retained Earnings at December 3	1	\$ 48,018,000		\$ 44,450,000

## Consolidated Statement of Source and Application of Funds

	1968 2 A 7 4 1967 (restated)
Cash, January 1	\$ 3,374,000 \$ 4,302,000
Source of Funds	
Net Income	9,568,000 9 6 9,226,000
Depreciation	12,006,000 3 11,501,000
Amortization of Patents, Trade Marks and Goodwill	291,000 2 291,000
Transfer (from) to Deferred Income Taxes	(1,082,000) 2,2,814,000
	20,783,000 23,832,000
Increase in Current Liabilities other than Bank Loan	5,502,000 4,250,000
Bank Loan	- 3,000,000
Net Value of Fixed Assets Sold (1968 proceeds \$1,404,000)	894,000 3 367,000
	27,179,000 31,449,000
Application of Funds	
Investment in Fixed Assets	13,262,000 2, 20,053,000
Dividends Paid	6,000,000
Bank Loan	3,000,000
Increase in Current Assets other than Cash	1,763,000 6,009,000
Investments	1,780,000 412,000
Long Term Debt	141,000 139,000
Other	508,000 (236,000)
	26,454,000 32,377,000
Increase (Decrease) in Cash	725,000 (928,000)
Cash, December 31	\$ 4,099,000 \$ 3,374,000

## Consolidated Balance Sheet as at December 31, 1968

ACCETC	December 31	
ASSETS	1968	1967 (restated)
Current Assets		
Cash	\$ 4,099,000	\$ 3,374,000
Receivables		
Trade Notes and Accounts	25,937,000	24,490,000
Trade Accounts—Affiliated Companies	2,702,000	1,918,000
Other Notes and Accounts	2,555,000	2,435,000
Special Refundable Tax	634,000	1,198,000
	31,828,000	30,041,000
Inventories—valued at the lower of cost or net realizable value (Note 2)	32,534,000	32,541,000
Prepaid Expenses	1,794,000	1,811,000
TOTAL CURRENT ACCETS	70.055.000	67 707 000
TOTAL CURRENT ASSETS	70,255,000	67,767,000
Fixed Assets (Note 3)	109,395,000	109,033,000
Investments—at cost (no quoted market value)		
Subsidiaries (Note 1)		
Shares	529,000	29,000
Advances	60,000	102,000
Other	2,454,000	1,132,000
	3,043,000	1,263,000
Other Assets		
Deferred Charges	397,000	205,000
Patents, Trade Marks and Goodwill—at cost less amortization	1,175,000	1,466,000
	1,572,000	1,671,000
	\$184,265,000	\$179,734,000

## Signed on behalf of the Board:

P. L. ALSPAUGH, Director

J. S. DEWAR, Director

LIABILITIES	December 31 1968 1967	
	1000	(restated)
Current Liabilities	\$	\$ 3,000,000
Bank Loan  Accounts Payable	16,222,000	14,372,000
Income and Other Taxes	6,578,000	4,297,000
Interest on Long Term Debt	111,000	112,000
Other Accrued Liabilities	4,802,000	3,430,000
TOTAL CURRENT LIABILITIES	27,713,000	25,211,000
Deferred Income Taxes (Note 4)	24,284,000	25,366,000
Long Term Debt (Note 5)	24,212,000	24,353,000
Minority Interest in Consolidated Subsidiaries	438,000	754,000
SHAREHOLDERS' EQUITY		
Capital Stock		
Common Shares Without Nominal or Par Value  Authorized —12,500,000 shares		
Issued and Outstanding—10,000,000 shares	59,600,000	59,600,000
Retained Earnings	48,018,000	44,450,000
	107,618,000	104,050,000
	\$184,265,000	\$179,734,000

The notes on page 12 form an integral part of this statement.

## Notes to the 1968 Consolidated Financial Statements

## 1. Principles of Consolidation

The consolidated financial statements include the accounts of the Company and all subsidiaries with the exception of two wholly owned subsidiaries which are not significant to the consolidation and are not comparable to the Company's operations. These two subsidiaries are carried at cost in "Investments" on the Consolidated Balance Sheet.

On January 7, 1969 the Company increased its equity in Chicoutimi Silicon Ltd. and Smelter Power Corporation. These two subsidiaries are included in the 1968 consolidated financial statements, and the 1967 figures have been restated for comparative purposes.

All assets and liabilities in foreign currencies have been translated to Canadian dollars at the exchange rate prevailing at December 31, 1968.

## 2. Inventories

Inventories at December 31 are classified as follows:

	1968 - 💉 🤼 👙 - 1967
Raw Materials and Supplies - ネネックトははまた。	\$ 9,346,000 \$ 9,011,000
Work in Process	9,136,000 8 8,451,000
Finished Goods $(\cdot,\cdot,\cdot)$ is a comparative for the second section of the second	14,052,000 15,079,000
	\$32,534,000 \$32,541,000

## 3. Fixed Assets

Fixed assets at December 31 are classified as follows:

0
0
0
0

## 4. Income Taxes

"Income Taxes—Current" of \$10,509,000 on the Consolidated Statement of Income and Retained Earnings includes a credit adjustment of \$598,000 resulting from the allowance by the Department of National Revenue of the Company's deductions for scientific research expenditures and other items in prior years. This treatment is in accord with the Company's normal accounting practice and a similar credit adjustment in 1967 amounted to \$1,173,000.

The Company uses the tax allocation principle to provide for income taxes. The time in which transactions affect taxable income frequently differs from the time in which they enter into the determination of income in the financial statements. The cumulative differences be-

tween taxes provided and taxes payable are shown as "Deferred Income Taxes" on the Consolidated Balance Sheet. The net effect of these timing differences for 1968 reduced Deferred Income Taxes by \$1,082,000, which reduction is reflected on the Consolidated Statement of Income and Retained Earnings.

## 5. Long Term Debt

"Long Term Debt" consists of

a) Debentures, secured by a floating charge and held by affiliated companies as follows:

	1968	1967
534% Series C, D and E due 1970 7 3 3 5 5 5 5	\$ 2,900,000	\$ 2,900,000
51/2% Subordinated due 1971	2,100,000	2,100,000
51/2% Second Subordinated due 1971	3,200,000	3,200,000
534% Second Subordinated due 1971	11,500,000	11,500,000
6% Second Subordinated due 1971	300,000	300,000
	\$20,000,000	\$20,000,000
<ul> <li>A final payment, due 1970 for shares purchased by the Company in a wholly-owned subsidiary, and which is subject to a reduction in certain events</li> </ul>	750,000	750,000
c) Bonds of a subsidiary as follows:		
5%% First Mortgage Sinking Fund Bonds maturing		
May 1, 1977	3,462,000	3,603,000
	\$24,212,000	\$24,353,000

## 6. Depreciation

The Company uses straight-line depreciation for financial accounting purposes. Rates are based on estimates of life-months for each unit of depreciable fixed assets. Gain or loss on disposal of fixed assets is calculated on the remaining net book value at the time of disposal.

## 7. Retirement Program

Costs of the Company's retirement program for employees are funded annually. Trust funds exceed the actuarial liability for benefits vested in employees. Past service costs are being amortized over a 25-year period ending in 1989.

## 8. Commitments

Purchase commitments for capital expenditures outstanding at December 31, 1968, amounted to approximately \$2,258,000.

## 9. Directors' and Senior Officers' Remuneration

The total remuneration paid or payable in 1968 was \$123,119 to directors of the Company and \$171,608 to senior officers who were not directors.

## Auditors' Report

## HURDMAN AND CRANSTOUN

ACCOUNTANTS AND AUDITORS

36 TORONTO STREET TORONTO, CANADA

To the Shareholders of Union Carbide Canada Limited, Toronto, Canada

We have examined the consolidated balance sheet of Union Carbide Canada Limited and its consolidated subsidiaries as at December 31, 1968 and the consolidated statements of income and retained earnings and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1968 and the results of their operations and the source and application of their funds for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year after giving retroactive effect to the consolidation of two subsidiaries referred to in Note 1.

Toronto, Canada January 31, 1969

Hurdman Ed Cranstoan

Accountants and Auditors

## Ten Year Summary (dollars in thousands—except per share figures)

	1968	1967 (restated)	1966 (restated)
Net Sales			
Chemicals and Fibres	\$ 30,387	\$ 26,320	\$ 23,277
Plastics	46,686	46,757	46,889
Gases	29,190	27,830	25,828
Metals	32,904	31,981	31,559
Carbons	26,991	28,091	27,182
	\$166,158	\$160,979	\$154,735
Net Income			
Amount	9,568	9,226	13,054
% of Sales	5.8%	5.7%	8.4%
Per Share (on 10,000,000 shares outstanding)	.96	.92	1.31
Total Assets	184,265	179,734	166,108
Construction Expenditures	13,262	20,053	24,465
Depreciation	12,006	11,501	9,966
Employee Data			
Wages and Salaries	35,749	34,502	31,682
Average Number of Employees	5,131	5,405	5,335

1965	1964	1963	1962	1961	1960	1959
\$ 24,660	\$ 26,109	\$ 22,989	\$ 21,943	\$ 18,436	\$ 17,977	\$ 19,949
44,808	41,385	34,592	32,073	28,604	28,234	26,021
23,264	20,955	18,841	17,499	14,569	14,401	13,817
28,207	23,491	19,161	20,164	17,628	21,428	22,311
24,398	21,444	17,839	17,753	18,198	18,337	19,203
\$145,337	\$133,384	\$113,422	\$109,432	\$ 97,435	\$100,377	\$101,301
13,039	12,130	9,728	9,339	7,533	8,252	10,315
9.0%	9.1%	8.6%	8.5%	7.7%	8.2%	10.2%
1.30	1.21	.97	.93	.75	.83	1.03
150,379	141,962	139,233	126,923	122,169	114,539	104,442
13,560	13,432	8,993	5,621	10,435	20,213	10,799
8,876	8,335	8,010	8,079	7,266	5,951	5,801
26,833	24,886	21,284	20,057	18,725	18,998	17,811
4,736	4,573	4,092	3,852	3,705	3,853	3,727

# Union Carbide and the world around us

While Union Carbide Canada Limited manufactures a number of well-known consumer items—such as EVEREADY batteries and PRESTONE anti-freeze—the Company is usually thought of as a primary supplier to industry. And yet, because of this relationship with industry, Union Carbide is connected indirectly with almost every facet of our lives.

In fact, have you ever wondered how the familiar things around you came into being? What makes up the material in your clothes . . . your car . . . your home . . . almost everything you use? All can be traced back to one or more of the world's many elements—and nearly half of these elements are separated or combined in Union Carbide's 41 plants and seven laboratories across Canada. The materials which result are used to make thousands of products—from paper clips to computers.

Take, for example, stainless steel. This versatile metal is used in the home, the office and the factory; on land, sea and in the air. What makes it so popular, of course, is its ability to resist rust and corrosion. And that's where Union Carbide comes in. The Company processes chromium ores into the special alloys that give the steel its stainless quality.

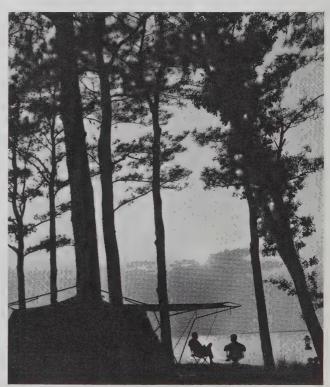
Carbon is another example. All around us are products which are made from or use this common element. At Union Carbide, we use a carbon post to form the positive electrode in EVEREADY batteries, to make brushes for electric motors and generators, and arc carbons for movie projectors. Electric furnaces used in smelting steel and other metals rely on giant carbon or graphite electrodes to provide heat.

A host of other Union Carbide products are made using materials as common as sand and as rare as argon, one of the valuable gases extracted from the air. The raw materials found in nature are also the basis for the myriad of exciting products being made from chemicals, plastics and synthetic fibres.

In this special foldout section is a pictorial essay which highlights the many and diverse ways in which Union Carbide Canada Limited contributes to industry and the consumer.

To the car owner PRESTONE anti-freeze is well known. But the Company's connection with the automobile goes much further. From Union Carbide petrochemicals come brake fluids and windshield de-icers. The cord in your car's tires may be made of UNEL nylon. The seats and doors may be padded with FIBERBOND non-woven material. The numerous plastic components may contain UNION CARBIDE resins or compounds. And in the engine itself are likely to be special alloys supplied by Union Carbide.





In Canada, with its vast areas of wilderness, the phrase "the great outdoors" assumes a literal meaning. Camping, hunting, fishing and hiking are naturally popular recreations, and the outdoorsman's kit often includes at least one Union Carbide product. Plastic bags and food wrap, "6-12" insect repellent, and EVEREADY flashlights are some of the items that go along with the enjoyment of field and stream.



## PLANTS / PRODUCTS

## **CARBONS**

Welland and Toronto, Ontario

Electric Arc Furnace Electrodes / Electrolytic Cell Anodes / Furnace Linings / Electric Motor and Generator Brushes / Theatre Projector Carbons / Carbon and Graphite Products for chemical, electrical, mechanical and metallurgical applications

## **CHEMICALS**

Montreal East, Quebec / Belleville, Ontario

UNION CARBIDE Organic Chemicals including Ethylene Oxide, Ethanolamines, Glycols and Glycol Ethers / Agricultural Chemicals / Silicone Chemicals, Resins, Oils and Elastomers

## **CONSUMER PRODUCTS**

Toronto and Walkerton, Ontario

EVEREADY Flashlight, Lighting, Photoflash, Hearing Aid, Transistor and other Electronic Batteries / EVEREADY Flashlight Cases and Lanterns / LINDE Star Sapphires and Rubies / PRESTONE Anti-Freeze Coolant and Car Care Products / "6-12" Insect Repellent / Garbage Bags / EVEREADY Automotive, Flashlight and Radio Panel Lamps

### **FIBRES**

Arnprior and Brampton, Ontario

UNEL Nylon / DYNEL Modacrylic Fibre / FIBERBOND Fabric and Filters

### **GASES**

Vancouver and Vernon, British Columbia / Calgary and Edmonton, Alberta / Saskatoon, Saskatchewan / Thompson and Transcona, Manitoba / Fort William, Sault Ste. Marie, London, Malton, Mississauga, Welland, Oakville, Sarnia and Ottawa, Ontario / Noranda, Arvida, Montreal, Montreal East, Tracy, Lauzon and Sept-Iles, Quebec / Saint John, New Brunswick / Halifax, Nova Scotia

## **METALS**

Welland, Ontario / Beauharnois, Quebec

LINDE Oxygen, Nitrogen, Hydrogen, Argon and Rare Gases / Calcium Carbide and Acetylene / Welding, Cutting, Forming and Heat-Treating Apparatus / Coatings Service / Steel-Conditioning Machines / Rock-Piercing and Shaping Equipment / Medical Gases, Inhalation and Suction Therapy Equipment / Distillation Trays / Cryogenic Equipment / Proppants / Synthetic Crystals / Food Freezing Equipment / In-Transit Refrigeration Systems / Molecular Sieves

Ferroalloys, Alloying Metals, Pure Metals and Metal Compounds produced from the elements Boron, Calcium, Chromium, Columbium, Manganese, Silicon, Tantalum, Titanium, Tungsten, Vanadium and Zirconium / Special Alloys to resist heat, corrosion and wear

## **PLASTICS**

Surrey, British Columbia / Fort Garry, Manitoba / Lindsay, Orangeville, Belleville and Maple, Ontario / Cowansville and Montreal East, Quebec / Amherst, Nova Scotia

UNION CARBIDE Phenolic Resins and Compounds / Polyethylenes and Co-Polymers / Epoxy Resins / Phenoxy Resins / Vinyl and Polystyrene Co-Polymer Resins and Compounds / Polysulfone Resins / Polyethylene Film / Fabricated Plastic Products / Industrial Shipping Bags / Flexible Packaging / Rigid Containers / VISKING Cellulose and Fibrous Food Casings

## CONSOLIDATED OPERATING SUBSIDIARIES

Wholly owned

Becker Drilling (Alberta) Ltd. and its wholly owned subsidiaries—devices for drilling through overburden Dominion Viscose Products Limited—viscose food casings

Union Carbide Canada Mining Ltd.—mining and exploration for minerals

Majority owned

Chicoutimi Silicon Ltd.—ferrosilicon Smelter Power Corporation—electric power

## Union Carbide and the world around us

While Union Carbide Canada Limited manufactures a number of well-known consumer items—such as EVEREADY batteries and PRESTONE anti-freeze—the Company is usually thought of as a primary supplier to industry. And yet, because of this relationship with industry, Union Carbide is connected indirectly with almost every facet of our lives.

In fact, have you ever wondered how the familiar things around you came into being? What makes up the material in your clothes . . . your car . . . your home . . . almost everything you use? All can be traced back to one or more of the world's many elements—and nearly half of these elements are separated or combined in Union Carbide's 41 plants and seven laboratories across Canada. The materials which result are used to make thousands of products—from paper clips to computers.

Take, for example, stainless steel. This versatile metal is used in the home, the office and the factory; on land, sea and in the air. What makes it so popular, of course, is its ability to resist rust and corrosion. And that's where Union Carbide comes in. The Company processes chromium ores into the special alloys that give the steel its stainless quality.

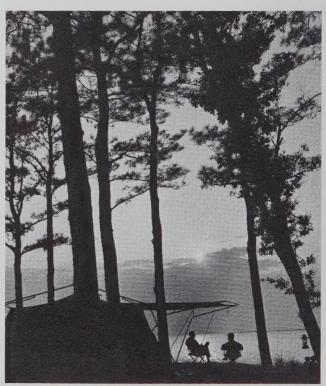
Carbon is another example. All around us are products which are made from or use this common element. At Union Carbide, we use a carbon post to form the positive electrode in EVEREADY batteries, to make brushes for electric motors and generators, and arc carbons for movie projectors. Electric furnaces used in smelting steel and other metals rely on giant carbon or graphite electrodes to provide heat.

A host of other Union Carbide products are made using materials as common as sand and as rare as argon, one of the valuable gases extracted from the air. The raw materials found in nature are also the basis for the myriad of exciting products being made from chemicals, plastics and synthetic fibres.

In this special foldout section is a pictorial essay which highlights the many and diverse ways in which Union Carbide Canada Limited contributes to industry and the consumer.

To the car owner PRESTONE anti-freeze is well known. But the Company's connection with the automobile goes much further. From Union Carbide petrochemicals come brake fluids and windshield de-icers. The cord in your car's tires may be made of UNEL nylon. The seats and doors may be padded with FIBERBOND non-woven material. The numerous plastic components may contain UNION CARBIDE resins or compounds. And in the engine itself are likely to be special alloys supplied by Union Carbide.

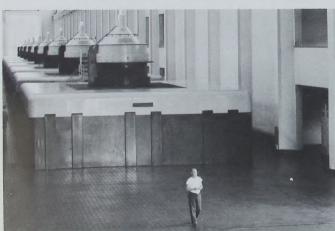




In Canada, with its vast areas of wilderness, the phrase "the great outdoors" assumes a literal meaning. Camping, hunting, fishing and hiking are naturally popular recreations, and the outdoorsman's kit often includes at least one Union Carbide product. Plastic bags and food wrap, "6-12" insect repellent, and EVEREADY flashlights are some of the items that go along with the enjoyment of field and stream.

Thousands of hospital patients throughout the country depend on UNION CARBIDE medical products. Oxygen and other vital gases are supplied in a variety of ways tailored to meet hospital needs. The cryogenic probe, a recent surgical breakthrough, is partly the result of Union Carbide research. Using liquid nitrogen at super-low temperatures it permits highly delicate operations in such areas as neurology, ophthalmology and gynaecology.





Energy comes from a variety of sources, and Union Carbide plays a role in most of them. In hydro generating stations, such as the one pictured above, the huge generators employ carbon and graphite brushes. Natural gas has to be sweetened before it reaches the consumer, a process involving chemicals supplied by the Company. And for one of the most modern sources of energy, nuclear power, Union Carbide fabricates distillation trays employed in making heavy water.

In today's jet age it is imperative to keep aircraft operating efficiently, and in the wintertime airlines have to overcome the hazards of snow and ice. Helping in this battle against the elements is UNION CARBIDE de-icing fluid, which is sprayed on fuselage and wings between flights. In aircraft engines, too, are found Company products—HAYNES alloys are designed to meet the rigid specifications of modern jet engines.





In and around the kitchen, Union Carbide helps the housewife in many ways. KITCHEN CATCHERS and garbage bags are obvious aids, but others are hidden. The Company manufactures resins for laminated table tops, chemicals for detergents and floor waxes, and food casings for processing sausages and other meat products.

Huge carbon and graphite electrodes are the core of the modern electric arc furnace. They help generate the intense heats – up to 6000°F – necessary to smelt ores for ferroalloys and to melt the raw materials that go into fine quality steels. Other Union Carbide products common to the smelting industry are carbon bricks, which are used to line furnaces, and LINDE oxygen which is used in various stages of steel production.

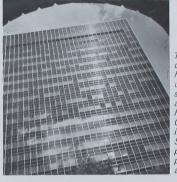




Industrial grade polyethylene film is used to protect this dyke's soft retaining wall from washout. UNION CARBIDE film is finding other uses in conservation – from linings for ponds to protection of plants, shrubs and agricultural crops.



Beauty aids are not normally associated with Union Carbide, but in fact the Company plays a significant role in the world of women. Ethanolamines are some of the chemical ingredients that go into cosmetics, shampoos, hairsprays, and other toiletries. Also from Union Carbide come DYNEL wigs and falls, LINDE Star Rubies and Sapphires, and UNEL nylon fashions.



The sun gleaming on the facade of this modern office building highlights the increasing use in today's architecture of stainless steel, aluminum and other metals produced with help from Union Carbide. The Company aids the construction industry in another way, too. Sheets of industrial grade polyethylene film are used to protect workers in the construction area against winter temperatures.



Proving its durability in an increasing number of Canadian homes is UNEL nylon. Union Carbide's man-made fibre is used in making both carpets and furniture fabrics. Also used in furniture, as an upholstery material, is polyurethane foam made with Union Carbide chemicals. Resins for paint, varnishes and wood glues are other Company products making their contribution to modern living.



## PLANTS / PRODUCTS

### CARBONS

Welland and Toronto, Ontario

Electric Arc Furnace Electrodes / Electrolytic Cell Anodes / Furnace Linings / Electric Motor and Generator Brushes / Theatre Projector Carbons / Carbon and Graphite Products for chemical, electrical, mechanical and metallurgical applications

### CHEMICALS

Montreal East, Quebec / Belleville, Ontario

UNION CARBIDE Organic Chemicals including Ethylene Oxide, Ethanolamines, Glycols and Glycol Ethers / Agricultural Chemicals / Silicone Chemicals, Resins, Oils and Elastomers

## CONSUMER PRODUCTS

Toronto and Walkerton, Ontario

EVEREADY Flashlight, Lighting, Photoflash, Hearing Aid, Transistor and other Electronic Batteries / EVEREADY Flashlight Cases and Lanterns / LINDE Star Sapphires and Rubies / PRESTONE Anti-Freeze Coolant and Car Care Products / "6-12" Insect Repellent / Garbage Bags / EVEREADY Automotive, Flashlight and Radio Panel Lamps

### **FIBRES**

Arnprior and Brampton, Ontario

UNEL Nylon / DYNEL Modacrylic Fibre / FIBERBOND Fabric and Filters

### GASES

Vancouver and Vernon, British Columbia / Calgary and Edmonton, Alberta / Saskatoon, Saskatchewan / Thompson and Transcona, Manitoba / Fort William, Sault Ste. Marie, London, Malton, Mississauga, Welland, Oakville, Sarnia and Ottawa, Ontario / Noranda, Arvida, Montreal, Montreal East, Tracy, Lauzon and Sept-Iles, Quebec / Saint John, New Brunswick / Halifax, Nova Scotia

### **METALS**

Welland, Ontario / Beauharnois, Quebec

LINDE Oxygen, Nitrogen, Hydrogen, Argon and Rare Gases / Calcium Carbide and Acetylene / Welding, Cutting, Forming and Heat-Treating Apparatus / Coatings Service / Steel-Conditioning Machines / Rock-Piercing and Shaping Equipment / Medical Gases, Inhalation and Suction Therapy Equipment / Distillation Trays / Cryogenic Equipment / Proppants / Synthetic Crystals / Food Freezing Equipment / In-Transit Refrigeration Systems / Molecular Sieves

Ferroalloys, Alloying Metals, Pure Metals and Metal Compounds produced from the elements Boron, Calcium, Chromium, Columbium, Manganese, Silicon, Tantalum, Titanium, Tungsten, Vanadium and Zirconium / Special Alloys to resist heat, corrosion and wear

## **PLASTICS**

Surrey, British Columbia / Fort Garry, Manitoba / Lindsay, Orangeville, Belleville and Maple, Ontario / Cowansville and Montreal East, Quebec / Amherst, Nova Scotia

UNION CARBIDE Phenolic Resins and Compounds / Polyethylenes and Co-Polymers / Epoxy Resins / Phenoxy Resins / Vinyl and Polystyrene Co-Polymer Resins and Compounds / Polysulfone Resins / Polyethylene Film / Fabricated Plastic Products / Industrial Shipping Bags / Flexible Packaging / Rigid Containers / VISKING Cellulose and Fibrous Food Casings

## CONSOLIDATED OPERATING SUBSIDIARIES

Wholly owned

Becker Drilling (Alberta) Ltd. and its wholly owned subsidiaries—devices for drilling through overburden Dominion Viscose Products Limited—viscose food casings

Union Carbide Canada Mining Ltd.—mining and exploration for minerals

Majority owned

Chicoutimi Silicon Ltd.—ferrosilicon Smelter Power Corporation—electric power



## **Head Office**

123 Eglinton Avenue East, Toronto 12, Canada

## Transfer Agent and Registrar

Canada Permanent Trust Company, Toronto, Halifax, Montreal, Winnipeg and Vancouver

## Stock Exchange Listings

Montreal, Toronto and Vancouver

## Auditors

Hurdman and Cranstoun, Toronto